

**FORCES AND EFFECTS IN THE PRIVATISATION PROCESS: AN EMPIRICAL STUDY OF TELECOMMUNICATIONS COMPANIES IN GERMANY AND ROMANIA****Andreas BARTELS***Bucharest University of Economic Studies, 010374, Romania  
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jschmid@spiritofsport.de***Abstract**

*Privatisation is supposed to lead to an increased efficiency and performance of a company. However, the internal and external environment of an enterprise is quite complex and many factors influence the organisation before and after the privatisation. The privatisation of a company (especially if it holds a natural monopoly) might be accompanied by a liberalisation of the market and the introduction of regulation. A model was developed which integrates all the major forces and effects with an influence on the performance of the company – incorporating also the peculiarities of transition economies. The model was verified on two telecommunications companies from Germany and Romania and shows inter alia that the effects “Laws and policies” and “Economic condition” may influence the overall performance of privatised companies in transition economies.*

**Key words:** *competition; efficiency; privatisation; state-owned company; telecommunications*

**JEL Classification:** *L33*

**I. INTRODUCTION**

Public enterprises have been founded for different reasons; e.g. for ideological reasons, the advancement of employment and education, to guarantee social justice and public health (e.g. water supply, sewage, waste collection), for defence considerations or as a way to generate funds to the state budget, to obstruct the entrance of foreign companies – and also to protect strategically important companies from bankruptcy (Williams, 1988; Clifton, Comin et al., 2003). There is a clear policy change visible starting in the 1970s. Neoliberal and conservative ideas came to the fore. It was assumed that state ownership was the reason for inefficiencies and the bad performance of companies in public hands. The collapse of the Eastern bloc and its centrally planned economies in the late 1980s and early 1990s was another evidence for the proponents of these ideas that private ownership is superior to a public one. All at once, privatisation (and the liberalisation of markets) became also an issue for countries in Central and Eastern Europe.

Usually, governments proclaim as one of the goals of privatisation the increase in the performance of the (formerly) state-owned company. But which factors and effects determine how successful a company will be after the transfer of ownership and the liberalisation of the market? A model that displays these influences was developed and verified on two telecommunications companies (telcos) in Germany and Romania.

## **II. THEORETICAL ASPECTS CONCERNING THE PRIVATISATION OF STATE-OWNED COMPANIES**

Several factors and effects influence the performance of companies.

### **2.1. Change of ownership**

The intellectual basis and force for privatisation can be derived from property rights and public choice theory. These theories were vigorously pursued and publicised by several free market pressure groups (Parker, 1994), but seen from a theoretical point of view they are weak on empiricism. However, the underlying notion that “ownership matters” is supported by several researchers (e.g. Pryke, 1986; Vickers and Yarrow, 1988; Cuervo and Villalonga, 2000; Brown, Earle et al., 2004). Changes in the property rights will have effects on the behaviour of the company (Vickers and Yarrow, 1988). Or as Pryke describes, public ownership removes the threat of bankruptcy and take-over as well as the need to raise funds on the capital market. Being a public company offers a cosy life and devastates the commercial ethic (Pryke, 1986).

However, a basic classification “private” or “public” is too general to make a prediction concerning the performance of a company. Besides the degree of a public or private ownership, additional factors have to be taken into account - especially for emerging economies:

- Dispersed versus concentrated ownership
- Insider (management/ employees) versus outsider ownership
- Foreign versus domestic ownership

Dharwadkar, George et. al (2000) describe the problems of weak governance in emerging economies. The weakness of internal and external control mechanisms combined with the underdeveloped institutional infrastructure leads to amplified principal-agent issues (Dharwadkar, George et al., 2000). Although the fear exists that a dispersed share ownership in a newly privatised company might dilute control over the management (Jackson and Price, 1994), empirical findings show that in developed economies privatised companies with a majority ownership by one shareholder do not outperform companies with minority ownership stakes. This is caused by strong governance mechanisms and the legal protection of minority shareholders. However, in emerging economies a dispersed outsider ownership leads to a reduced performance in comparison to a dominant outsider ownership (Dharwadkar, George et al., 2000).

Privatised companies with outsider ownership should also perform better than the ones with insider ownership in emerging economies. It seems that insider ownership leads to a reduced risk taking and a hesitant behaviour concerning restructuring (including layoffs) and innovation (Dharwadkar, George et al., 2000). In an emerging economy - according to empirical research - a dominant foreign ownership will in general also lead to a better performance of a company - compared to one with dominant local ownership (Dharwadkar, George et al., 2000; Brown, Earle et. al, 2004).

### **2.2. Competition and regulation**

Monopoly power of a private company might have negative effects on allocative efficiency (although the firm may be internally efficient). Privatising a monopoly may entail - according to property rights and public choice theories - elevated profits for the company rather than a reduction of prices (Parker, 1994). Or, as Posner (1984) mentions, privatisation is harmful if it substitutes a private for a public monopoly. Especially, the privatisation of public utilities is therefore often accompanied by a deregulation and liberalisation of the market.

Competition forces a company to be efficient in order to survive in the market. It leads to a stronger impetus for increasing performance than privatisation itself (Vickers and Yarrow, 1988; Wallsten, 1999; Florio, 2003). Privatisation on its own should lead to an increased internal efficiency but as Knieps (2001) mentions, one of the goals of competition is to simultaneously improve static as well as dynamic efficiency. If a natural monopoly is transferred from the public to the private realm, a regulatory regime is needed as to prevent the misuse of market power. Regulation has to simulate the market constraint. Whereas a public company can be guided by a state authority, a private company will take advantage of its informational advantage if it is not restrained.

The challenging task for the regulatory authority is to design the incentives in a way that the company acts in the public interest (Vickers and Yarrow, 1988). The weaker competition is, the stronger the regulatory measures have to be. Many regulatory decisions focus on pricing in order to bring prices close to the costs of an efficient service provisioning. However, the risk is that a company does not earn enough funds that could be used for investments in its infrastructure. There exists the danger of underinvestment - often induced by an uncertainty about future regulatory decisions (Vickers and Yarrow, 1988; Knieps, 2001). If monopolistic bottlenecks have dissolved (e.g. in a dynamic industrial sector like telecommunications) and effective

competition exists, regulation has to be phased-out (Knieps, 2001) and the market should be guided by competition policy.

### **2.3. Organisational change**

A successful strategy links the company's external environment to its internal situation (Thompson and Strickland, 1992). External changes such as privatisation, competition and regulation typically lead to endogenous changes in the company's strategy and organisation (Cuervo and Villalonga, 2000). An organisational structure that is incongruent to the company's internal or external environment exerts a negative influence on the performance (Dunsire, Hartley et al., 1991). In order to achieve this fit and to become internally efficient, modifications in the strategy (including changes in goals), in the operational and organisational structure as well as in labour relations are necessary. On the operational level, privatisation should lead to new product developments, process innovations and enhanced production methods (Zahra, Ireland et al., 2000) – an effective competition might also foster these goals.

In transitional economies, the organisational and operational adjustments within the company might be too immense as to achieve a smooth transformation. Newman (2000) describes that the massive institutional changes in Central and Eastern Europe led to transformations within the companies as the resources and capabilities that functioned in the central planning system did not work in a market economy. If there is too much change on the institutional level, the transformation of the organisation is hindered as the company's ability for organisational learning is confined (Newman, 2000). It might therefore take a long time and requires a lot of management attention to find this strategic fit between the external and internal environment.

### **2.4. Effects**

Besides the 4 forces (ownership, competition, regulation as well as organisation and strategy), several other variables influence the performance of the company. The latter are termed effects (or effect variables) in this paper. Threats (as the take-over threat) and influences that are usually not exclusively directed at one company or industry are considered to be effects here. The capital market entails the threats of bankruptcy and take-over (Kay and Thompson, 1986) – which are eliminated for public companies (Pryke, 1986). The take-over and bankruptcy threats – and their limitations - are well-documented in the literature (Singh, 1975; Pryke, 1986; Vickers and Yarrow, 1988).

Laws and policies also have some bearing on the performance of the company. Competition law could for example prohibit a planned merger. Labour law outlines *inter alia* rules concerning working hours and for discharging employees. Tax laws specify the taxes and charges a company is obliged to pay (e.g. trade tax) or which it has to charge its customers (e.g. value added tax). Administrative laws delineate rules concerning environmental protection or subsidies that exert an effect on the costs or – in the case of subsidies – on the income of the company. Also economic policies – or more specifically trade policies, fiscal policies, monetary policies etc. – exert a financial effect on the firm.

The state of the economy – represented *inter alia* by parameters like the inflation rate, interest rate, exchange rate, purchasing power, unemployment rate and the economic growth rate – also influences the performance of the company. In transitional economies, the effects “Laws and policies” as well as the “Economic condition” might have a stronger impact on a company's performance - in comparison to developed markets - as these countries often experience a second-order change.

III. RESEARCH METHODOLOGY AND GOALS

Based on the theoretical findings, the four-forces-model (Fig. 1) was developed. The four forces “ownership”, “competition”, “regulation” as well as “organisation and strategy” have a direct influence on the efficiency of the company. The effects also need to be analysed in order to make an assumption about the efficiency effects on the company.



Figure 1- The four forces of efficiency model

The model not only illustrates the main forces and effects, but also explains why simple assumptions like privatisation always leads to an increased performance cannot be valid. Many empirical studies about privatisation did not reveal a clear-cut result or show a bias pro privatisation. Other studies have reported mixed or “negative” results – especially if competition was not strong in the industry (Parker, 2004). Thus, several authors mention – and warn about – these diverging results that privatisation cases displayed in empirical research (Dunsire, Hartley et al., 1988; Vickers and Yarrow, 1988; Dunsire, Hartley et al., 1991; Cuervo and Villalonga, 2000; Ramamurti, 2000; Clifton, Comin et al., 2003; Florio, 2003). Dunsire, Hartley et al. (1988) mention that also the problems of the counter-factual, anticipation effects, the role of time and changes in goals make the empirical research in this area difficult.

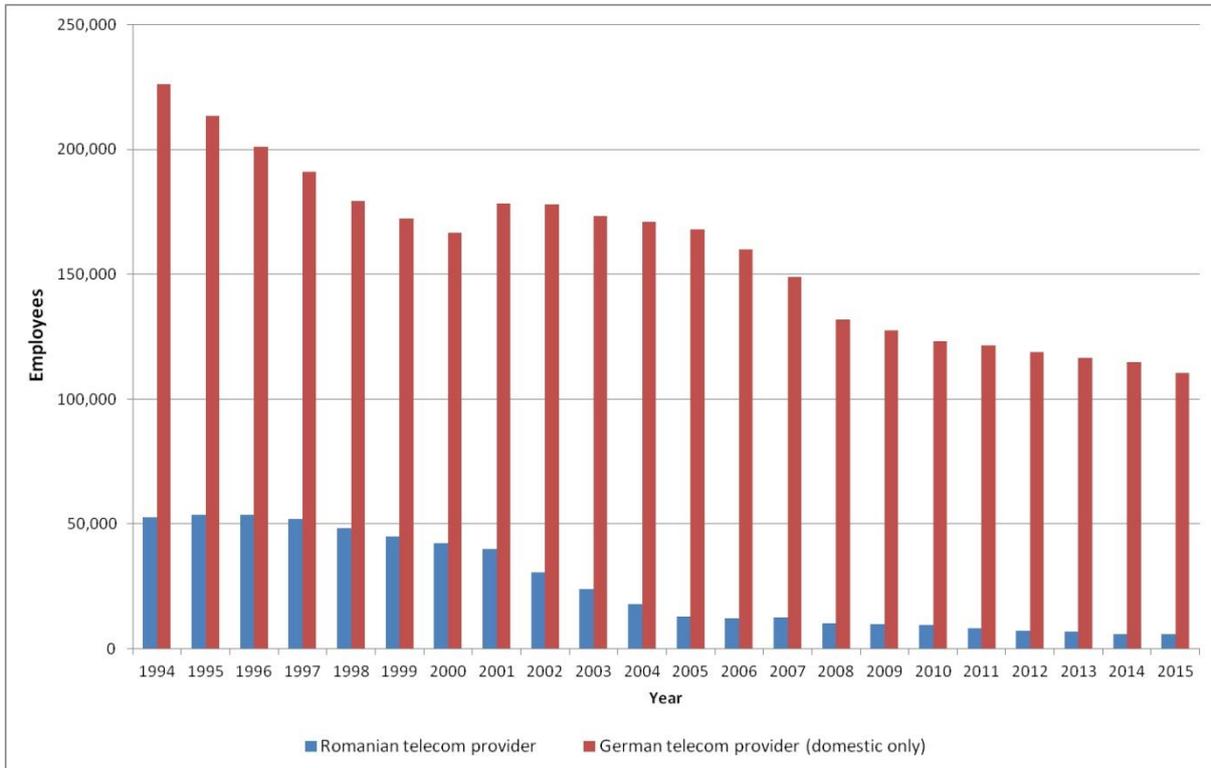
The focus of this paper has been on two telecommunications companies which are representative for a transitional and a developed market. The privatisation of the Romanian company took place at a time when it still had to divest its communist heritage and underwent massive social, economic, judicial, administrative and political changes. The privatisation of the German provider occurred in a stable political, economic and social environment. The efficiency changes induced by the forces and effects were evaluated in order to make assumptions about their strengths. For developed markets, the forces are quite well-documented in the literature – although often not all important forces were taken into consideration or just for a short period of time. In transitional economies - like Central and Eastern Europe during the 1990s and early 2000s - additional parameters might have influenced the performance of the companies and were therefore taken into account for the model. Several variables were taken as to analyse the impact of the factors and effects – only a very limited number of them can be shown here due to the limited space. In general, the variables have to be treated carefully. Variables can be easily distorted by factors which might not have been in the focus of the researcher. Labour productivity for example might increase by the introduction of new technologies and processes. Profitability could rise due to a reduction in the product quality or service level. Alterations in accounting standards - which usually occur after the transfer of the organisation into the private realm - also might give a distorted picture about changes in the profitability and performance of the organisation.

Although the limitations of the variables are well-known, the variable “number of employees” was utilised as it reflects the influence of privatisation, competition, regulation and structural changes unfiltered. The allocative efficiency is documented by the price development.

**IV. FINDINGS**

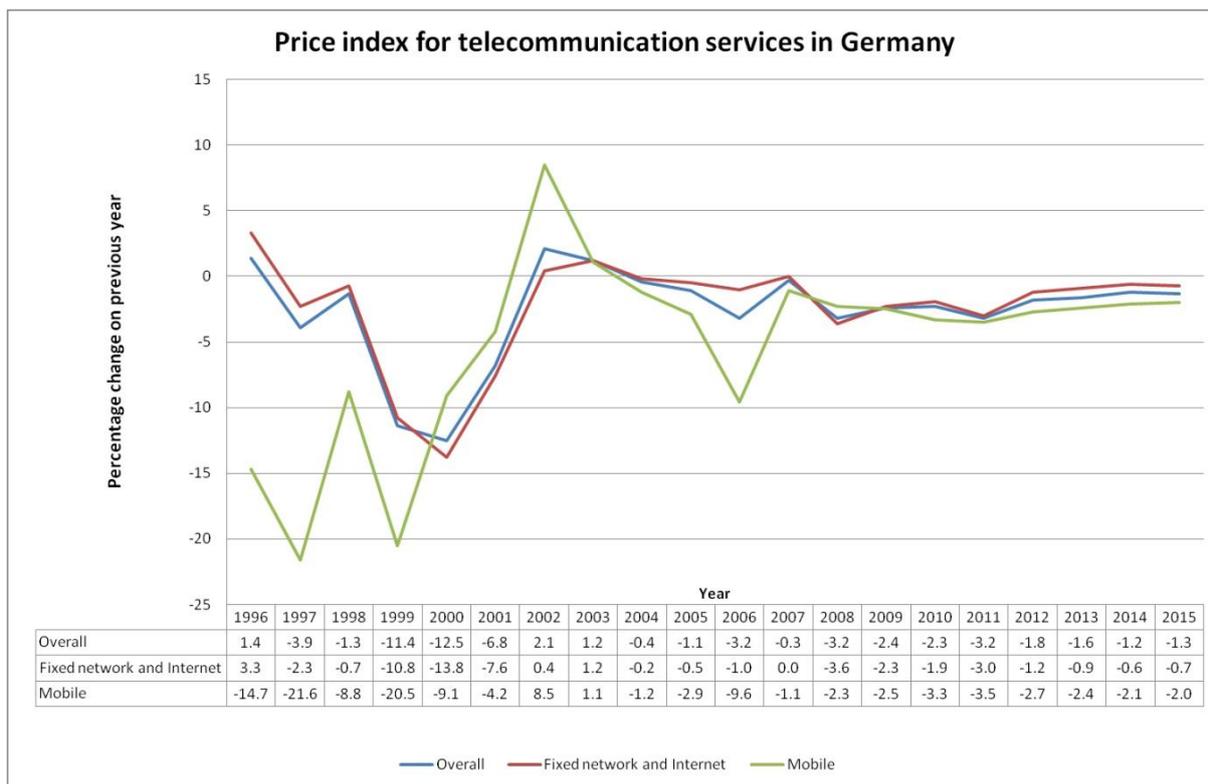
The case studies revealed that all 4 forces increased the efficiency of the companies; however, the strength of each force varied in time and so did their influence on the performance. The effect variables - as expected from the literature review - only influenced the Romanian company significantly.

The German incumbent was incorporated as a joint stock company (wholly owned by the federal government) in 1995 and went public on 18 November 1996. According to the data, privatisation exercised a greater effect on the internal efficiency than what was expected from the literature. The number of employees fell already significantly before going public – see Fig. 2.



**Figure 2 - Number of employees [Data sources: Telekom Romania, Deutsche Telekom]**

The capital market proved to be a strong force to raise the performance even that the majority of shares was still in public hands for several years after the Initial Public Offering (IPO). The Telecommunications Act fully liberalised the German market as of 1 January 1998. The liberalisation and the introduction of regulation did exert a strong influence on the wholesale and retail prices of the incumbent and increased especially the allocative and internal efficiency. The first adaptations in the organisational structure were visible directly after the privatisation of the company. However, the largest modifications in the operational and organisational structures occurred after the introduction of competition. As expected, the effect variables did not significantly affect the performance of the incumbent – even the financial crisis in 2008/2009 did not preclude net profits. The net losses in 2001, 2002 and 2012 can be attributed to factors that were solely in the domain of the company (primarily write-downs).

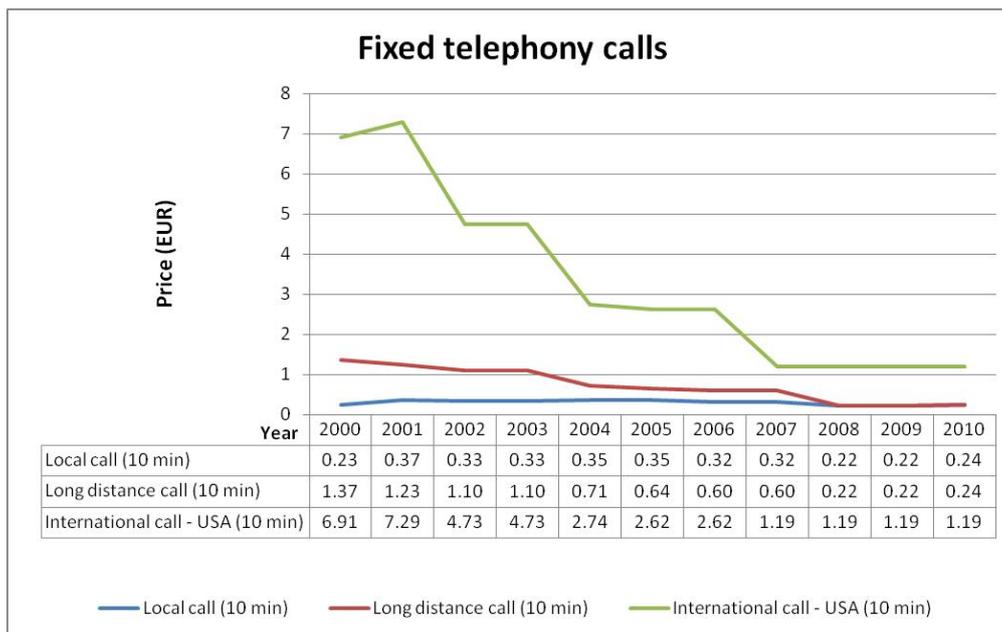


**Figure 3 - Price index for telecommunication services in Germany [Data source: Statistisches Bundesamt, 2016]**

In Romania, the incumbent was transferred into the private realm as a joint stock company on 1 November 1997. On 30 December 1998, a Greek telecommunications company acquired 35% of the share capital (plus an additional 16% in voting rights). The shares of the telco have until now not been listed on the stock exchange and its Greek owner acquired the share majority only in 2003 - the same year when also the fixed line market was liberalised. In this case, competition led to stronger incentives for internal efficiency than privatisation (Fig. 2). The competitive force has grown steadily since the introduction of competition as new aggressive players have entered the market. The regulation of the incumbent has also proved to be a strong force. Regulation focused on the wholesale and retail markets in the beginning. By now, regulation on the retail market has already been phased-out to some extent. A real organisational change took place only in 1999 - after its privatisation. Nevertheless, the genuine impetus for severe reorganisations occurred after the introduction of competition and regulation. In 2003, the company started a major restructuring program and further projects that streamlined processes and the organisational structure were initiated in the following years.

The number of staff fell from 53,759 in 1995 to 5,914 employees in 2015 according to Fig. 2. The number of staff increased slightly from 1994 to 1995 which can be attributed to the monopolistic situation and being a public company at that time.

The bankruptcy and the take-over constraints are overstated according to the case studies. These effects were negligible in both cases. However, the variables “Laws and policies” and “Economic condition” affected the performance of the Romanian company. Laws were changed after 1989 as to introduce the principles of a market economy. The central planning process was abolished and with it the close involvement with state authorities. The adaptations to the workings and rules of a market economy however needed some time in order to develop its positive effects within the company. Whereas the new laws and policies led to positive effects on the performance, the economic condition exerted negative effects in some years. The economic situation was severe in the first years after the end of the Ceaușescu regime. The unemployment rate rose from 3.5% in 1991 to 11% in 1994 and the GDP fell severely between 1989-1992. A hyperinflation in the 1990s and early 2000s affected inter alia the revenue side of the company. In 1999 for example, the company increased its prices quarterly. At the time of the economic transition, the incumbent still held its monopoly in the fixed line market which allowed it to increase prices irrespective of any competitive pressure. Overall, the effects “Laws and policies” and “Economic condition” exerted a strong influence on the company. The former improved the internal efficiency although it took some time until the company adapted to the workings of a market economy and the latter had negative effects especially in the 1990s and early 2000s.



**Figure 4 - Fixed telephony tariffs of the incumbent in Romania<sup>4</sup> [Data source: European Commission<sup>5</sup>, 2016]**

**V. CONCLUSION**

As shown in the context of this paper, a successful privatisation is depending on several factors. The performance of a company is not only dependent on the ownership variable, but also on other forces and effects. The reviewed empirical studies showed differing results about the success of privatisation – however, they often neglected to take all forces and effects into account that determine the performance of the company. The liberalisation of a market (often paired with a regulation of the incumbent) is frequently a stronger force – especially for allocative and internal efficiency - than the privatisation itself. Changes in the strategy and in organisational structures and processes generally improve the internal efficiency. The dynamic efficiency is to a large extent dependent on the competitive and regulatory environment.

In developed economies the effect variables play only a subordinate role. In transitional or emerging economies they might however play a significant role. It has to be pointed out that it is often difficult - if not impossible - to attribute efficiency changes - to a single force or effect. They may overlap and multiply the respective force or effect. The strength of the forces and especially of the effect variables is difficult to measure and might be a field for future research. Also, the number of case studies should be increased in order to achieve a generally accepted validity of the model.

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<sup>4</sup> Prices include VAT, calls at 11am on a weekday; no special rates applied.

<sup>5</sup> Data only available from 2000 to 2010, no data beyond 2010.

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